CLAIMS

1.   A push-type information transmission method in an communication network including an information provider server device, a plurality of user terminals for

5   receiving information provided by said server device, and a transfer device for routing information transmission between said server device and said user terminal; wherein said transfer device comprises:

a step of receiving information mail supplied with a network address of a user terminal designated as a desired destination from said server device;

10   a step of storing said information mail;

a step of calling the user terminal whose network address has been designated; and

a step of transmitting the stored information mail in response to a request from said called user terminal.

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2.   A push-type information transmission method as in claim 1, wherein said user terminal comprises a step of pre-accessing said server device and registering its own network address with said server device as a registration procedure for receiving an information transmission service offered by said server device, and

20   said server device provides information to user terminals which have completed said registration.

3.   A push-type information transmission method in an communication network including an information provider server device, a plurality of user terminals for

receiving information provided by said server device, and a transfer device for routing

information transmission between said server device and said user terminal; wherein

said transfer device comprises:

    a step of pre-storing information relating to user terminals which are to receive

5   an information providing service offered by said server device;

    a step of receiving information mail supplied from said server device;

    a step of storing said information mail;

    a step of calling a relevant user terminal based on the pre-stored information

relating to user terminals which are to receive an information providing service; and

10   a step of transmitting the stored information mail in response to a request from

the called user terminal.

4.   A push-type information transmission method as in claim 3, wherein said user

terminal comprises a step of pre-accessing said server device and registering its own

15   network address with said server device as a registration procedure for receiving an

information transmission service offered by said server device, and

    due to this step, information relating to the user terminals which are to receive

information providing services offered by said server device is pre-stored.

20   5.   A push-type information transmission method in an communication network

including an information provider server device, a plurality of user terminals for

receiving information provided by said server device, and a transfer device for routing

information transmission between said server device and said user terminal; wherein

said transfer device comprises:

a step of storing user attribute data of each user and network addresses of the user terminals in correspondence;

a step of receiving information mail supplied from said server device together with attribute information of users designated as desired destinations;

5   a step of storing said received information mail;

a step of comparing said stored user attribute data and the designated user attribute data, and specifying network addresses of user terminals corresponding to users having the designated attributes;

a step of calling the specified user terminals; and

10   a step of sending the stored information mail in response to a request from said called user terminals.

6.   A push-type information transmission method as in claim 5, wherein said user terminal comprises a step of pre-accessing said server device and registering its own

15   network address with said server device as a registration procedure for receiving an information transmission service offered by said server device, and

said transfer device calls user terminals which have completed said registration.

20   7.   A push-type information transmission method as in any one of claims 1-6, wherein said server device belongs to a first communication network which follows a first communication protocol, said plurality of user terminals belong to a second communication network which follows a second communication protocol different from said first communication protocol; and

said transfer device is a gateway for converting between said first and second

communication protocols and routing the exchange of said information mail.

8.   A push-type information transmission method as in claim 7, wherein said

5   plurality of user terminals are given first network addresses used only on said first

communication network and are discriminated on said first communication network by

second network addresses which have a one-to-one correspondence with said first

network addresses in said second communication network; and

said transfer device converts between said second network addresses in said

10   first communication network and said first network addresses in said second

communication network.

9.   A push-type information transmission method as in claim 8, wherein said

second   communication network is a local network accommodating specific user

15   terminals; and

said first communication network is a global network interconnecting

information resources such as said server device to which are allotted identification

information for identifying an absolute address in the network.

20   10.   A push-type information transmission method as in claim 9, wherein said

second communication network is a mobile communication network accommodating a

plurality of user terminals which are mobile stations; and

said first communication network is the Internet.

11.   A transfer device for routing information transmissions between an information

provider server device and a plurality of user terminals for receiving the information

provided by said server device, comprising:

receiving means for receiving information mail supplied from said server

5   device together with a network address of a user terminal designated as a desired

destination;

storage means for storing the received information mail;

calling means for calling the user terminal whose network address has been

designated; and

10   sending means for sending the stored information mail in response to requests

from said called user terminal.

12.   A transfer device for routing information transmissions between an information

provider server device and a plurality of user terminals for receiving the information

15   provided by said server device, comprising:

memory for pre-recording information relating to a user terminal which is to

receive an information providing service offered by said sever device;

receiving means for receiving information mail supplied from said server

device;

20   storage means for storing the received information mail;

calling means for calling relevant user terminals based on information relating

to the pre-recorded user terminal which is to receive an information providing service;

and

sending means for sending said stored information mail in response to requests

from said called user terminal.

13.   A transfer device for routing information transmissions between an information

provider server device and a plurality of user terminals for receiving the information

5   provided by said server device, by comprising:

memory for recording user attribute information and a network address of the

user terminal in correspondence with each other with respect to each user;

receiving means for receiving from said server device information mail

supplied together with attribute information of a user designated as a desired

10   destination;

storage means for storing the received information mail;

specifying means for comparing the recorded user attribute information with

the designated user attribute information, and specifying network addresses of user

terminals which correspond to user having the designated attributes;

15   calling means for calling the specified user terminals; and

sending means for sending said stored information mail in response to requests

from the called user terminals.

14.   A transfer device as in any one of claims 11-13, wherein said server device

20   belongs to a first communication network which follows a first communication protocol,

and said plurality of user terminals belong to a second communication network which

follows a second communication protocol different from that of said first

communication network; and

comprising protocol converter for converting between said first and second

protocols.

15.   A transfer device as in claim 14, wherein said plurality of user terminals are given first network addresses used only on said second communication network and are
5   discriminated on said first information transmission network by second network addresses which have a one-to-one correspondence with said first network addresses in said second communication network; and

comprising address converter for converting between said second network addresses in said first communication network and said first network addresses in said
10   second communication network.

16.   A transfer device as in claim 15, wherein said second communication network is a local network accommodating specific user terminals; and

said first communication network is a global network interconnecting
15   information resources such as said server device to which are allotted identification information for identifying an absolute address in the network.

17.   A transfer device as in claim 16, wherein said second communication network is a mobile communication network accommodating a plurality of user terminals which
20   are mobile stations; and

said first communication network is the Internet.